

Connecticut Department of Public Health

Metallic Mercury: Health Effects Fact Sheet



This fact sheet describes health effects from exposure to metallic mercury in the home.

For small mercury spills in the home such as from a broken thermometer, occupants may contact a professional remediation (clean-up) firm, or perform the clean-up themselves. ***It is important that clean-up be done properly to prevent further contamination.*** Household occupants should follow the Connecticut Department of Public Health's ***Guidelines for Residential Clean-Up of Broken Thermometers***. Mercury from a broken thermometer in a home should be saved for disposal during your town's household hazardous waste day. For disposal of larger quantities of mercury, contact the Department of Environmental Protection at 860-424-3372. For emergency spill information, contact DEP at 860-424-3338 (24 hrs/day).

If you or other household occupants have been exposed to mercury and are experiencing any symptoms described in this handout, contact your doctor. Be sure to tell him/her about your exposure to metallic mercury. There are laboratory tests that can help evaluate your level of exposure. Your doctor can order a urine mercury level to evaluate long-term exposure. A blood test is sometimes done to evaluate high-level, short-term exposures.

Metallic mercury is a silver colored liquid. Other common names are quicksilver, elemental mercury and azogue. It may be found in the home in a variety of common items such as:

- ▶ some thermometers, barometers, thermostats, electrical switches
- ▶ some types of home medical equipment
- ▶ some light bulbs and fixtures, including fluorescent, high intensity, mercury vapor, high pressure sodium and metal halide bulbs
- ▶ some clock pendulums
- ▶ some batteries, athletic shoes, toys and cards that light up or make noise
- ▶ azogue capsules, which are gel capsules filled with liquid mercury, often sold in botánicas (Latino herb and spiritual shops), used in *espiritismo*, *santeria* and folk medicine practices
- ▶ liquid mercury brought home as a novelty from school or work

Important Phone Numbers

CT Dept. Public Health Division of Environmental Epidemiology & Occupational Health	860-509-7744
CT Poison Control Center	1-800-343-2722
CT Dept. Environmental Protection (Emergency spills, 24 hrs/day)	860-424-3338
UCONN Health Center Occupational & Environmental Medicine Clinic	860-679-2893
Yale Occupational & Environmental Medicine Clinic	203-785-4197

When liquid mercury is contained within these items, there is little chance of exposure. However, if the items break, mercury can be released, and exposure is likely. Liquid mercury vaporizes

when it comes in contact with air. The warmer the air is, the more quickly it vaporizes. Mercury vapor is odorless and colorless, making it impossible to detect without special measuring devices.

**Short -Term (Acute) Exposure
Metallic Mercury
Signs and Symptoms**

Cough, difficulty breathing, chest pain, nausea, vomiting, diarrhea, fever, metallic taste in mouth

Breathing the mercury vapor is very dangerous - much more dangerous than swallowing it. This is because inhaled mercury vapor is almost completely absorbed by the body. Ingested metallic

mercury is *poorly* absorbed from the gastrointestinal tract, and passes through as fecal waste. Skin contact is also dangerous, because mercury can be absorbed through the skin.

Even small amounts of mercury such as that found in thermometers (approximately 0.05 milliliters, or 0.7 grams) or fluorescent bulbs (approximately 0.02 milliliters, or 0.25 grams) can represent an exposure risk if not cleaned-up properly and promptly. Health effects can occur within hours (acute) or over weeks, months or even years (chronic). See the boxes on this page.

Mercury vapor is heavier than air and tends to settle to the floor. **This puts children at increased risk**, because they are closer to the ground and **are more likely to breathe mercury vapor** which has settled. They also tend to have extensive skin contact with carpets or other flooring. Children sometimes develop acrodynia, describe in the box on this page.

Long-term (chronic) exposure to metallic mercury vapor can cause serious health problems. The central nervous

**ACRODYNIA
Signs and Symptoms
in Children**

severe leg cramps
irritability
numbness, prickling or tingling
painful pink fingers
peeling hands, feet and nose

system

**Long-Term (Chronic) Exposure
Metallic Mercury
Signs and Symptoms**

Shakiness, psychological changes, difficulty sleeping, loss of appetite with weight loss, irritability, excessive shyness, emotional instability, headache, short-term memory loss

can become damaged. **Tremor(shakiness) and personality disturbances are important signs of chronic exposure to metallic mercury vapor.** Other findings include tingling of the extremities, limb weakness and impaired motor control.

